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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,972	02/08/2005	Eiji Kadouchi	43890-715	1562

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EXAMINER	
BERHANU, SAMUEL	
ART UNIT	PAPER NUMBER
2838	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,972	KADOUCHI ET AL.	
	Examiner	Art Unit	
	Samuel Berhanu	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,6 and 8-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,6 and 8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 6, 8-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashiguchi et. al. (JP Publication number: 62-234878) in view of McCall (US5,994,669)

Regarding Claim 1, Hashiguchi et. al. disclose in Figures 1-2, a battery storing device comprising: a battery (8) storing section (1) that can store a battery inside and has a heat retaining function of retaining heat of the battery that is stored inside using heat insulating material (the box is a hermetically-sealed heat-insulated box, see abstract and Claim 1); and a heat retention releasing mechanism (an air flowing door 3) for releasing the heat retaining function, an independent discharge circuit having a heating resistor (6).

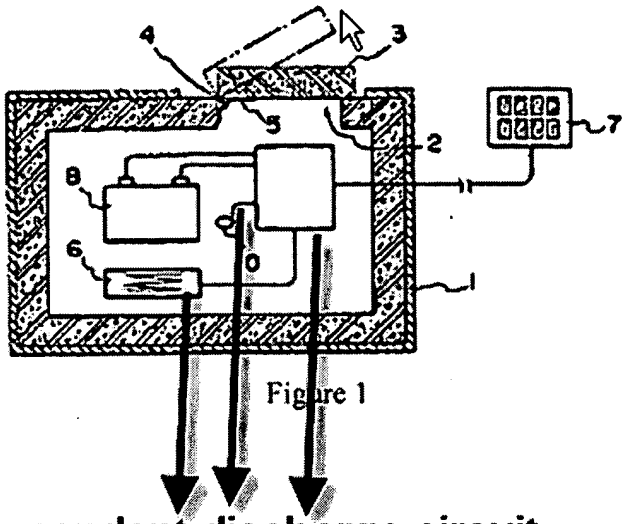

Figure 1

Independent discharge circuit

(see figure below)

Wherein the heat retention releasing mechanism (3) opens and closes an opening for making air flow between the inside and outside of the battery storing section (1) (noted that element 2 and 3 is used as a means of air flowing in and out from the box 1, see Abstract). Hashiguchi et. al. do not disclose explicitly, said independent discharge circuit is directly coupled to the battery and can perform discharge independently from the charge/discharge operation of a main circuit. However, McCall discloses in Figures 1-4, said independent discharge circuit (heat discharge warmer circuit) is directly coupled to the battery (the warmer (the heater) circuit of McCall is wrappable heating unit that is wrapped around the battery, see Column 3, lines 30-34) and can perform discharge independently from the charge/discharge operation of a main circuit (see Column 1, lines 58-62, Column 3, lines 1-15, and Column 19-34). It would have been obvious to a person having ordinary skill in the art to substitute Hashiguchi et. al. heater

with McCall warming system in order to increases the life of batteries and increases the efficiency and warms the battery only at an elevated level for a short period of time prior to use.

Regarding Claim 6, Hashiguchi et. al. disclose in Figures 1-2, a temperature detector (10) for detecting temperature inside the battery storing section. However, McCall discloses in Figures 1-4, a circuit control section for controlling the independent discharge circuit based on the temperature detected by the temperature detector.

Regarding Claim 8, Hashiguchi et. al. disclose in Figures 1-2,a heat conductor forming a heat conduction route for conducting heat between the inside and outside of the battery storing section; and a mechanism for opening and closing the heat conduction route (noted that when the door is opened/closed heat is exchanged between the inside and the outside environment)

Regarding Claim 9, Hashiguchi et. al. disclose in Figures 1-2, a temperature detector (10) for detecting temperature inside the battery storing section ; and heat-retention release control section for controlling the heat retention releasing mechanism based on the temperature detected by the temperature detector (Noted that the door is opened and closed as the temperature inside heat-insulated box deviates)

Regarding Claim 11, Hashiguchi et. al. disclose a battery storing device (1); and a battery stored in the battery storing device.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashiguchi et. al. (JP Publication number: 62-234878) in view of McCall (US 5, 994,669) as applied to claim 1 above, and further in view of Wightman (US 4,591,692).

Regarding Claim 5, neither Hashiguchi et. al. nor McCall disclose wherein the independent discharge circuit has at least a PTC device. However, Wightman discloses wherein the independent discharge circuit has at least a PTC device (the heater or warmer plate is PTC that discharges heat in order to warm the battery, see figures 1 and 2, element 40). It would have been obvious to a person having ordinary skill in art to substitute the heat discharge or (warmer) element of McCall with PTC element and use it as heater in Hashiguchi et. al. system as taught by Wightman in order to provide a battery warmer that is simple, safe, easy to install, highly convenient to use, and economical both in manufacture and in use.

4. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashiguchi et. al. (JP Publication number: 62-234878) in view of McCall (US 5,994,669) as applied to claim 1 above, and further in view of Admitted Prior Art (APA).

Regarding Claim 10, Hashiguchi et.al. do not disclose explicitly, the battery is a lithium secondary battery. However, in applicant's disclosure page 1, line 27, a lithium secondary battery is disclosed. It would have been obvious at the time of the invention to a person ordinary skill in the art at the time of the invention to substitute Hashiguchi et. al. battery with a lithium secondary battery as taught by APA in order to have a high density and a low self-discharge battery with a lightweight.

Regarding Claim 12, Hashiguchi et. al. do not disclose explicitly, an electrically driven mechanism for being driven by power supply from the power supply device. However, Applicant's disclosure in page 1, line 16 and page 3, lines 6-9, electrically driven mechanism (automobile) driven by power supply (battery) from the power supply

device. It would have been obvious at the time of the invention to a person having ordinary skill in the art to use Hashiguchi ei. al. battery in the automobile as taught by APA in order to provide a backup power supply when main energy supply fails to provide power to the engine.

Response to Arguments

5. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Regarding the limitation of "having a heating resistor".

Element 6, of Figure 1 of Hashiguchi discloses a heating resistor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Berhanu whose telephone number is 571-272-8430. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB

KARL EASTHOM
SUPERVISORY PATENT EXAMINER